

LineageGUIDe

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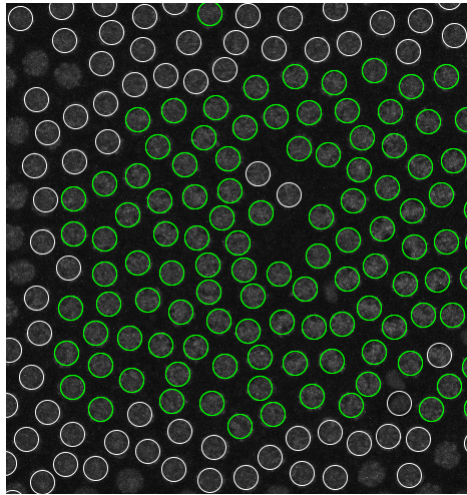
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1 Interphase

During interphase, you can see all the nuclei with white or green circles. White means that it has no children, green means that it does have children. If it is yellow, it is the nucleus you have selected (see later).



2 Navigation

You can navigate with the following:

q or ;: One frame Backward

w or .: One frame Forward

Q or j: Five frames Backward

W or ⌵: Five frames Forward

r : Previous Nuclear Cycle

t : Next Nuclear Cycle

j : Jump to a frame inputted on prompt

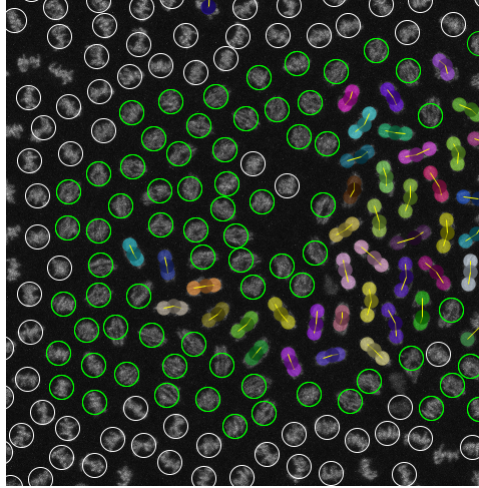
s : Save

x : Save and quit

d : Delete mode Mouseclick: Start LineagingMode on this frame

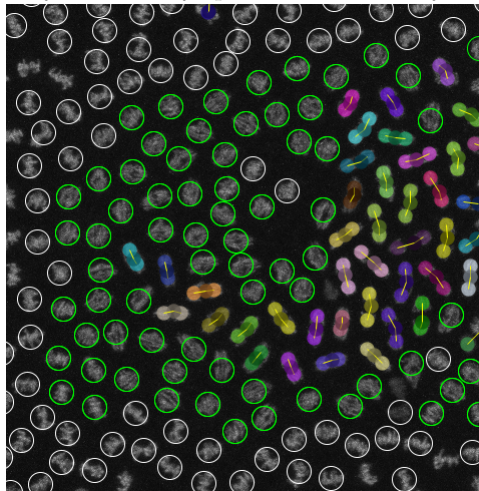
3 Mitosis

During mitosis, you can see the same white or green circles for the parents. The daughters are labeled by a unique colour, and you can see the the last known location of the parent (before division) in a slightly darker version of the same unique colour.



4 LineagingMode

If you do a mouseclick while navigating, a red cross-hair pops up, and you can now select your parent nucleus. After that, the screen will be filled with dark green empty circles, with filled green or white circles (and maybe one yellow circle). The dark green outline shows the positions of all the nuclei in the previous frame. A green filled circle indicates that it is a nucleus that's about to split into two, and a white filled circle indicates otherwise (it may be because they are already split or because they don't have associated daughters).



4.1 Navigation

q or ,: One frame Backward
w or .: One frame Forward
Q or j: Five frames Backward
W or Ŀ: Five frames Forward
j : Jump to a frame inputted on prompt
s : Save
x : Save and quit

4.2 Selecting the daughters

So, navigate between the frames, until you reach a frame where you feel that you can correctly identify the daughters. Click anywhere on that frame, and then the red cross-hair will feature again. In this case, select the two daughter nuclei, and now these nuclei will be associated with the parent nuclei. You can navigate back and forth to confirm this.

If you select the same nucleus twice, it will be associated as the only daughter. If you click on n when the red cross-hairs pop up, then no daughters will be assigned and all previously assigned daughters will be removed.

5 DeleteMode

Instead of clicking on the frame to start LineagingMode, you can also type d to start DeleteMode. The nuclei still look the same, but you can click on all the nuclei you want to get rid of. To get out of delete mode, type n.